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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/458,190	12/09/1999	BRADLEY CAIN	2204/185	8564

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STEUBING AND MCGUINESS & MANARAS LLP
125 NAGOG PARK
ACTON, MA 01720

EXAMINER
VO, LILIAN

ART UNIT	PAPER NUMBER
2127	*1H*

DATE MAILED: 04/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/458,190	Applicant(s) CAIN, BRADLEY
	Examiner Lilian Vo	Art Unit 2127

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 February 1933*.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 - 6, 8 - 11 and 13 - 15* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1 - 6, 8 - 11 and 13 - 15* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
    1.☐ Certified copies of the priority documents have been received.
    2.☐ Certified copies of the priority documents have been received in Application No. _____.
    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
        application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1 – 6, 8 – 11 and 13 - 15 are pending. Claims 7 and 12 have been cancelled.

Claim Objections

2.   Claims 8 and 13 are objected to because of the following informalities.

Claim 8 recites as depending on itself, which is improper.

Claim 13 depends on claim 12, which is a deleted claim.

For the purpose of the examination, the Examiner will assume each depends on claims 6 and 11, respectively. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4.   Claims 1 – 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5.   **Claim 1** recites the limitation "the detection" in page 6, line 8. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

7.   Claims 1, 2, 3, 5, 6, 8, 10, 11, 13 and 15 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Saleh et al. (US Pat. Application Publication 2003/0058804 A1, hereinafter

Saleh) in view of Welland et al. (US 5,247,677, hereinafter Welland).

8.   Regarding **claim 1**, Saleh discloses a method for expediting a selected operation in a

computer system, the method comprising:

       associating a plurality of routing operations with an operating system task, the plurality of

routing operations including the selected operation (abstract: establishing path between nodes,

page 8, paragraph 96 – 97, and figs. 5 - 6);

       executing the operating system task at a low priority level prior to performing the

selected operation (page 4, paragraph 55: some tasks are processed at a lower priority than the

other); and

       performing the selected operation in response to the detection of a trigger condition

comprising a link state advertising message indicating that the selected operation is to be

performed (page 8, paragraphs 96 – 100, page 20, paragraph 237 and figs. 5 and 6. Each node is required to send a periodic Hello message that may contain several LSAs, paragraph 97. Certain actions are performed by the node when receiving LSAs message, paragraph 99 – 98 and fig. 6).

Saleh did not clearly disclose the step of raising the operating system task to a high priority level to perform the selected operation. Instead, Saleh discloses (paragraph 55) that some tasks are being processed at a lower priority level than the other. Saleh also discloses (paragraphs 99 – 100, and fig. 6) that when a node receives LSAs message, it is first analyzed to determine the appropriate action to be formed. The LSA is then acknowledged by sending back an appropriate response to the node having transmitted the message.

It is obvious for one of an ordinary skill in the art, at the time the invention was made, to recognize that when it is time to send out the Hello message, which also contains LSAs, a higher priority is enforced to take care of the operation right away. Thus, boosting the task (operating system task) to a high priority level.

In addition, Welland discloses that when an event is reported for a task, it would raise the current priority of the task to a higher priority level (col. 4, line 63 – col. 4, line 4). It would also obvious for one of an ordinary skill in the art, at the time the invention was made, to combine Welland's teaching with Saleh to boost a current priority of a task to a higher priority level so that necessary operation can be formed in a timely manner to enhance system performance.

9.   Regarding **claim 3**, Saleh discloses a routing task (abstract: establishing path between nodes. Page 8, paragraph 96 – 97, and figs. 5 – 6: sending messages to each other), and the link state advertisement protocol message includes link status information (abstract, page 8, paragraphs 97 – 100).

10.   Regarding **claim 5**, Saleh discloses that some activities such as topology distribution are having a lower priority (page 4, paragraph 55) and that the periodic requirement to send LSAs messages at the node trigger certain actions to be performed at the time (page 8, paragraphs 96 – 100).

It is obvious for one of an ordinary skill in the art, at the time the invention was made, to recognize that Saleh teaches the limitation as claimed, in which the periodic requirement of sending LSAs message, when happen, boost the priority of the task to perform certain actions and after the performance which relate to LSAs message have been completed, go back to the normal or previous level.

11.   **Claims 2, 6, 8, 10, 11, 13 and 15** are rejected on the same ground as stated above.

12.   Claims 4, 9 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saleh et al. (US Pat. Application Publication 2003/0058804 A1, hereinafter Saleh) in view of Welland et al. (US 5,247,677, hereinafter Welland) as applied to claims 1 – 3, 6, 8, 11 and 13 above, and further in view of Feldman et al. (US 6,148,000, hereinafter Feldman).

13.   Regarding **claim 4**, Saleh and Welland did not disclose the additional limitation as

claimed. Nevertheless, Feldman discloses the use of Dijkstra shortest path algorithm calculation

that utilizes the unique router "labels" received in the link state advertisement protocol message

(col. 13, lines 40 – col. 14, line 26).

It would have been obvious for one of ordinary skill in the art, at the time the invention

was made to include Feldman's teaching to Saleh and Welland combined to utilize Dijkstra

algorithm so that the system have the capability to determine the shortest route in the

communication network.

14.   **Claims 9 and 14** are rejected on the same ground as stated above.

Response to Arguments

15.   Applicant's arguments with respect to claims 1, 6 and 11 have been considered but are

moot in view of the new ground(s) of rejection as set forth above.

Conclusion

16.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure. Akiyama et al. (US 6,430,594), Johnson et al. (US 6,308,245), Agarwala et al. (US

6,682,270) and Nakano et al. (US Pat. Application Publication 2003/0021228 A1) disclosed the

priority of a task is increased.

17.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Lilian Vo whose telephone number is 703-305-7864. The

examiner can normally be reached on Monday - Thursday, 7:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Meng-Ai An can be reached on 703-305-9678. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

                                        Lilian Vo
                                        Examiner
                                        Art Unit 2127

lv
April 16, 2004

                                MENG-AI T. AN
                        SUPERVISORY PATENT EXAMINER
                          TECHNOLOGY CENTER 2100